

AMENDMENTS TO THE SPECIFICATION:

Please replace the title with the following new title:

--HANDHALD CALCULATOR WITH PROBLEMS AND OPERATIONS LINKED LISTS--

Please replace the paragraph beginning at page 9, line 16, with the following rewritten paragraph:

1 Referring now to Figures 2A through 2G, there are illustrated screen
2 displays typical for the calculator illustrated in Figure 1 while running an
3 application called symbolic math guide ("SMG"), which incorporates a system for
4 interactive transformation of expressions and/or sub-expressions of mathematical
5 equations. The symbolic math guide provides step-by-step problem solving
6 transformations for various mathematical problem types such as algebra and
7 calculus. This helps students learn symbolic computation. As an example,
8 Figure 2A illustrates a typical computer screen showing menus as well as the
9 history of a problem chosen for solution. As shown and as an example only, the
10 screen includes a menu tab selection line 40 with tabs F1, F2, F5 and F7. The
11 above-mentioned tabs will be discussed below, but it should be understand that
12 other tabs and other possible manipulations of the menu may be made available
13 by the computer. In the embodiment shown, a statement of the type of problem
14 to be solved such as simplifying a polynomial, expanding a polynomial or simply
15 solving the problem, etc., is displayed in display area 42. Below the problem
16 statement displayed in area 42, there is also included a multi-line area 42A 43 for
17 displaying the actual problem being solved followed by a display of the step-by-
18 step solution.

Please replace the paragraph beginning at page 11, line 14, with the following rewritten paragraph:

1 Eventually, as will be appreciated, a particular problem or mathematical
2 expression which constitutes a part of the problem will be selected for solving,
3 expanding or simplifying, etc. from one or more linked-list of problems, such as
4 for example, the SMPS set of problems as indicated in Figure 2B and referred to
5 as "problem" linked list. The selected problem will then be displayed in area 42A
6 43 of the multi-line display screen 14 of calculator 10. The calculator will then
7 evaluate the problem or mathematical expression and determine which
8 mathematical operation selected from those operations which are performable
9 by the calculator are applicable or will operate on the selected problem. All of
10 the possible operations performable by the calculator are referred to as the
11 master list and may or may not represent an actual list stored in memory. One
12 or more of the applicable operations are then stored in the memory as a linked
13 list. In the embodiment shown and illustrated in Figure 2F, the tab keys may also
14 be defined so as to provide a list of the types of problems that may be solved
15 such as "simplify" (as shown in 2A through 2D, 2H and 2G), "solve" (as shown in
16 Figure 2E) and "compute" (derivatives). The appropriate action to be taken is
17 determined by selecting the appropriate "F" key associated with its tab.
18 Assuming the "F1" "simplify" key is selected, a drop down menu will then be
19 displayed (not shown) which illustrates the type of problems that can be
20 simplified. The operator then enters a problem to be solved and subsequently
21 selects the "TRANS" (transformation) key. At this point, a linked list of
22 mathematical operations, including transformations such as "complete the
23 square," "factor" or expansion, which are applicable, can operate on or
24 manipulate the problem or mathematical expression as shown in Figure 2G. The
25 linked list is referred to herein as an "operations" linked list and may include
26 operations which will not simplify or lead to a solution of the problem or
27 mathematical expression. This allows the student to make wrong choices as
28 well as correct choices and to see the effect of such wrong choices.

Please replace the paragraph beginning at page 12, line 19, with the following rewritten paragraph:

1 When the student makes a choice from the displayed linked list (a right
2 choice or a wrong choice), the calculator will then operate on the selected
3 problem or mathematical expression according to the student's choice. The
4 results or the effect of the operation on the problem is then displayed on a line in
5 display area 42A 43. That is, the problem (expression) operated on is rewritten
6 or displayed with the changes. After the problem (or selected algebraic
7 expression which makes up part of the problem) is displayed with the results of
8 the previous operation, the calculator will then again determine which of the
9 operations available from the master list are now applicable to the rewritten
10 problem or mathematical expression, and a new linked list of possible operations
11 is displayed. The new linked list may include operations which were not
12 applicable in the previous pass and consequently were not displayed. If the
13 previous operation was with respect to a mathematical or algebraic sub-
14 expression which made up part of the overall problem and has now been
15 simplified as far as possible, the student may choose another and separate sub-
16 expression which also makes up the problem or may now chose an operation
17 which operates on the whole problem.